

main

n = sumof(17, 42)

```

movq 817, %rdi
movq 142, %rsi
call sumof - push ret addr

```

int sumof(int x, y) {

```

int a;
int b;
a = x;
b = a + y;
return b;
}

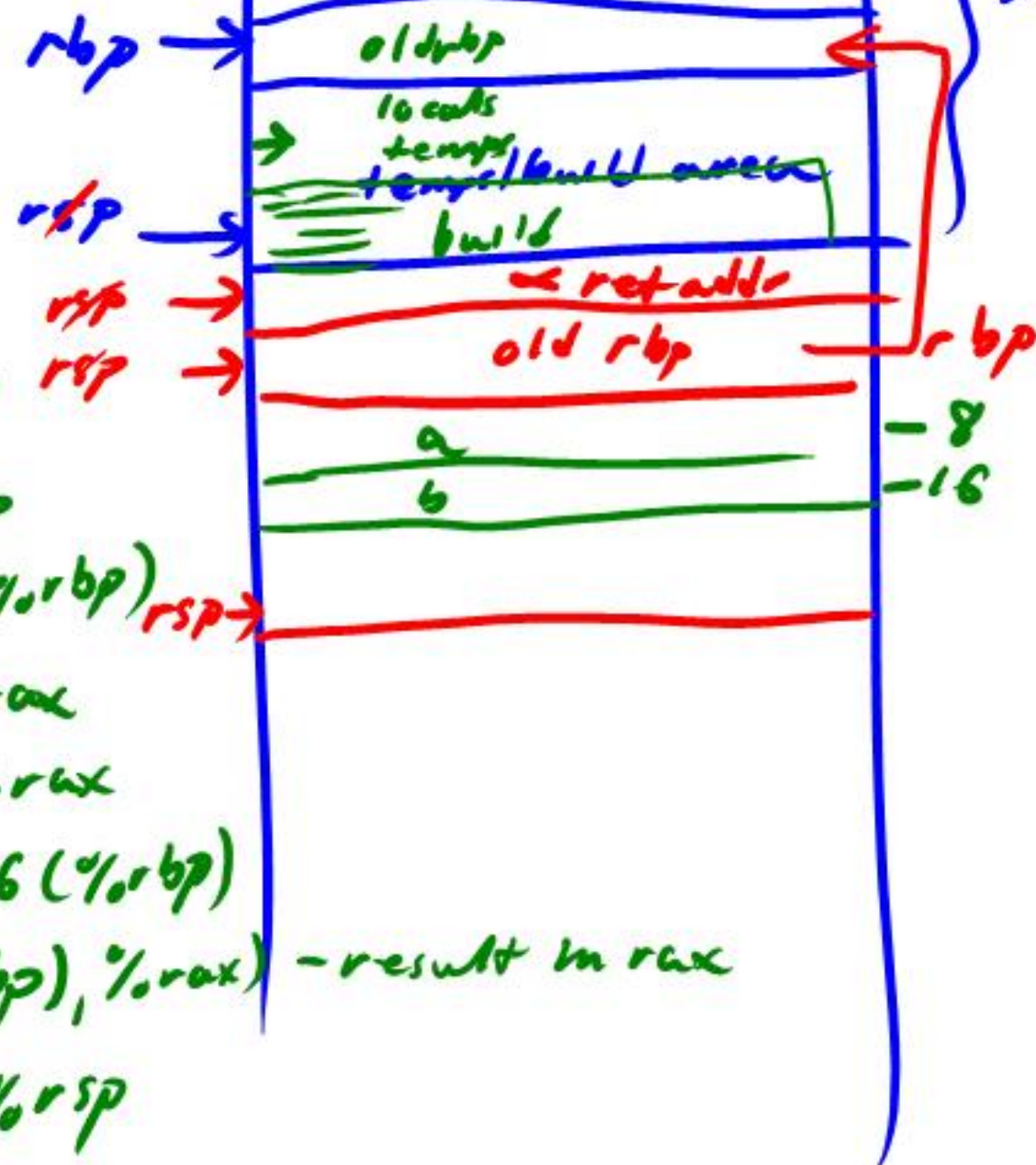
```

```

sumof: pushq %rbp
movq %rsp, %rbp
subq $160, %rsp
movq %rdi, -8(%rbp)
movq -8(%rbp), %rax
addq %rsi, %rax
movq %rax, -16(%rbp)
movq -16(%rbp), %rax - result in rax
movq %rbp, %rsp
popq %rbp
ret

```

stack ← 8 →



opt

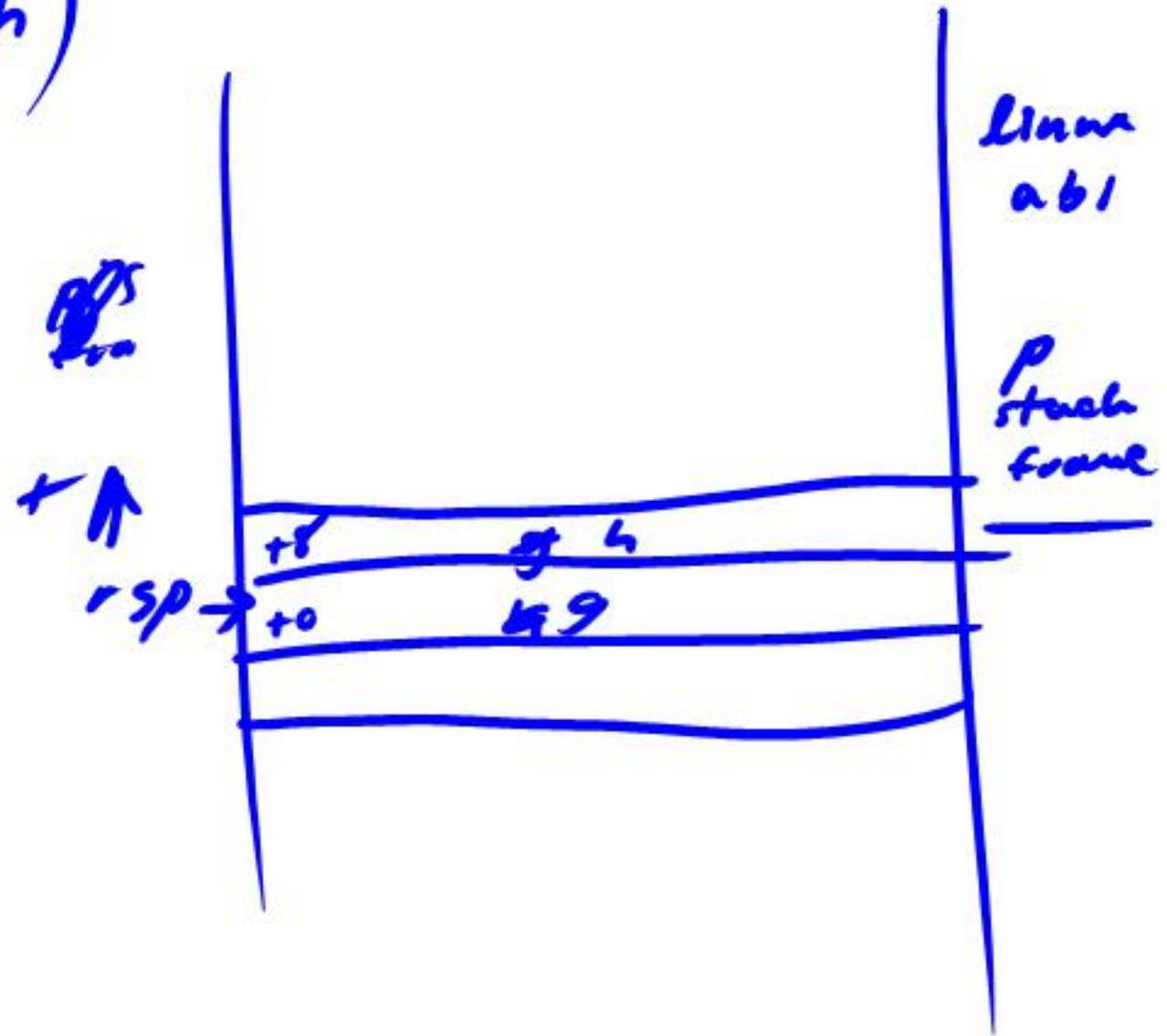


- result in rax

in proc P

f(a, b, c, d, e, f, g, h)

movq a, %rdi
b, %rsi
c, %rdx
d, %rcx
e, %r8
f, %r9
g, 0(%rsp)
h, 8(%rsp)

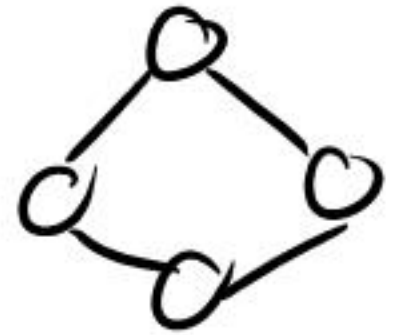
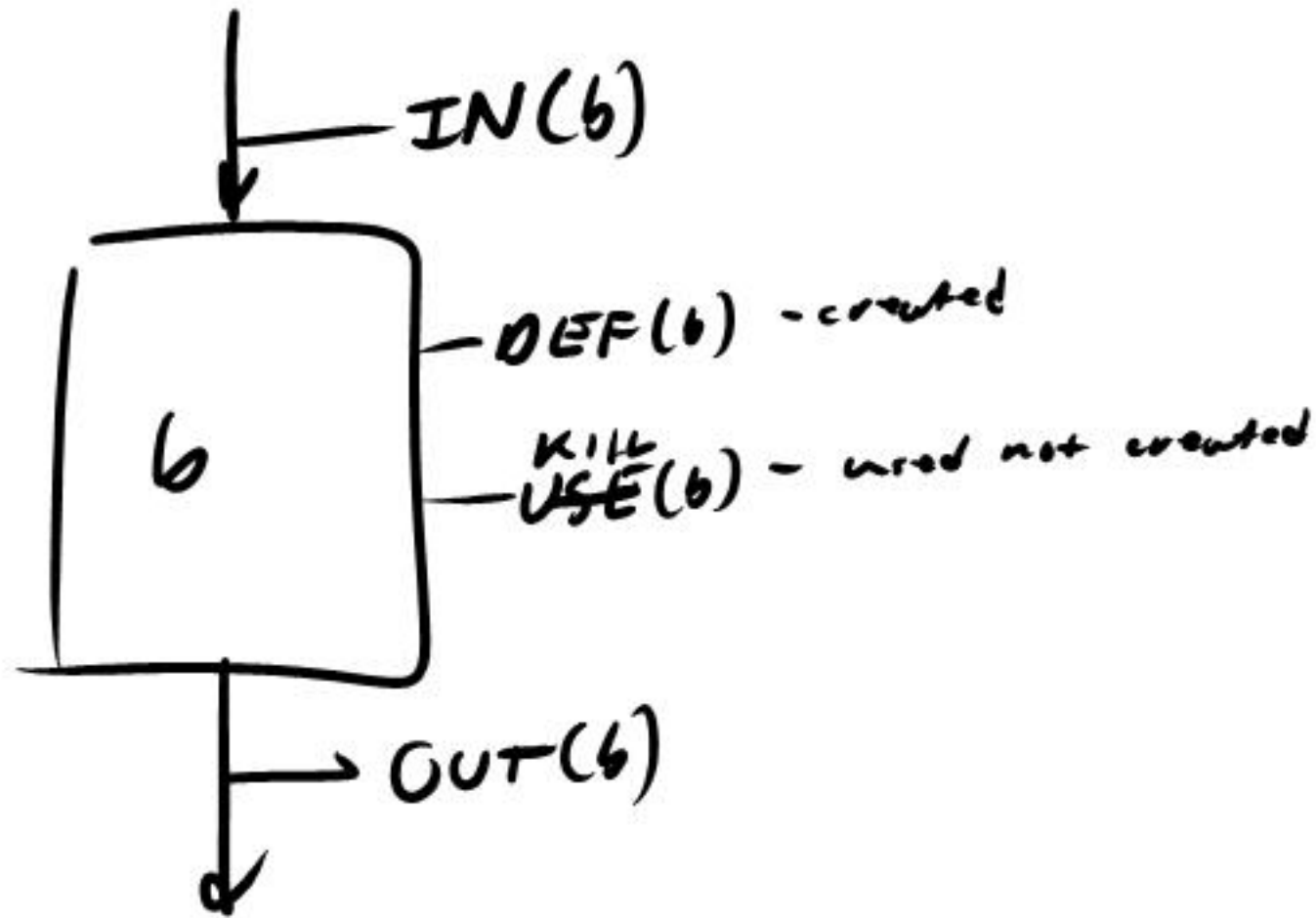


x(h(), g(), b)

$\langle \text{nonterm} \rangle$ \emptyset

$x := y \quad \text{if } x=y \quad -$

$\langle \text{start} \rangle ::= \langle \text{var} \rangle \underline{:=} \langle \text{exp} \rangle$



$$OUT(b) = DEF(b) \cup (IN(b) - KILL(b))$$

$$IN(b) = \bigcup_{pred} OUT(pred)$$